ABSTRACT

By exactly comprehending the true properties of the rare elements (such as Bi and Se) which are alternative components for Pb, the alloy is enabled to secure machinability equal to the bronze alloy (CAC406) generally used hitherto and acquire mechanical properties at least equal to the CAC406 as well in spite of a decrease in the content of the rare elements (such as Bi and Se) in the alloy. Further, it is possible to suppress the occurrence of casting defects by elucidating the unresolved influence of the decrease of the alternative components (such as Bi and Se) for Pb on the wholesomeness of a casting. Moreover, it is possible, by decreasing the rare elements, to produce a copper-based alloy containing rare elements at a low cost and to provide a cast ingot and a liquid-contacting part each using the alloy. The copper-based alloy, and the cast ingot and liquid-contacting part each using the alloy individually contain at least 2.8 to 5.0 wt% of Sn, 0.4 to 3.0 wt% of Bi and satisfying $0 < Se \leq 0.35$ wt% to enable securing prescribed machinability and wholesomeness of a casting and exalt mechanical properties thereof.